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THIS IS UNEVALUATED INFORMATION

THE QUALITY OF GIFTI PHOTOCOLORIMETERS

To inspect the operation of photocolorimeters produced by GIFTI (Gor'ky Physicotechnical Institute), particularly the FOKO type manufactured in 1943-44, GIFTI associates visited the KMK (Kuznets Metallurgical Combine) and a number of Donbass plants (Makeyevskiy, Yenakiyevskiy, Kramatorskiy, and Konstantinovskiy).

They found that the report on the poor quality of GIFTI equipment and the reasons for equipment break downs was incorrect as stated by workers of the TsZL (Central Plant Laboratory) of KMK.

The workers' statement pointed out that, in the case of photocells of the IFAN type manufactured in 1943-44, by the time they began operating the apparatus in 1947 the cells had lost their sensitivity and were replaced by selenium photocells. These evidently were also not sensitive enough either, since they were operated with excess filament voltage, which caused the tubes to burn out within 3 months. After this, the tubes were replaced with others requiring about six times as much current. It was only natural that rheostats burned out and that the apparatus' housing began to burn. This should have been foreseen by the workers of the TsZL, KMK when they replaced the tubes. The FOKO apparatus was manufactured, according to the contract with Narkomcheret, especially for the determination of phosphorus and silicon in steels, that is, for work with acid solutions. In work with ammonia solutions, the vessel naturally leaked.

(Editor's Note: Nothing concerning this was in the instructions attached to the apparatus.)

The FOKO photocolormeter at KMK went out of order because instructions for the use were disregarded. Incidentally, the statement maintained that the plant actually received six FOKO apparatus, two of which are still in storage and have never been used in the TsZL.

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In the Donbass plants, of ten FOKO instruments manufactured in 1943-44, seven were not put into operation because of the lack of photocells, voltmeters, and storage batteries (the latter are not included with the apparatus). Our co-workers, with very little effort, adjusted their operations, using apparatus available at the plants. During this time, they had the opportunity to convince themselves, even in this case, that instructions given to plant workers were not adequate. For example, the zero setting was obtained by varying the filament voltage of the tube despite the fact that, in the FOKO apparatus, this setting is obtained by a voltmeter with the aid of a special resistance.

From reports of Plant imeni Kalinin, it is evident that if the apparatus is operated under normal conditions and instructions are followed, there are no complaints against the apparatus. The phrase, "It is time to discontinue manufacture of defective articles", with which Comrade Nikulinskiy concludes his article, can in no matter pertain to the photocolormeters manufactured by GIFTI.

This does not mean that there were no defects in the FOKO apparatus. In 1945 we undertook, on our own initiative, to develop photocolormeters of a new design (the FOK-45) equipped with all necessary devices and operating on AC. With regard to circumstances under which the FOKO apparatus was developed and manufactured, they have already been pointed out in the answer to Comrade Nikulinskiy's article, published at the same time.

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